

**REMARKS**

This document is filed in reply to the Office Action dated January 23, 2009 (“Office Action”).

Claims 1-10 and 12-15 were pending in the present application.

By this Amendment, claim 1 has been amended to more clearly describe the invention and claim 4 has been amended to correct a grammatical error.

Support for the amendments to these claims appears in the specification and previously presented claims. Support for the amendment to claim 1 appears, e.g., in the specification, page 35, lines 10-18, where describes ionic Au was used to prepare the gold nanopartilce, which is equivalent to that no Fe atom but only Au was used. Unlike the superparamagnetic material, iron (Fe), the gold nanopartilce has no magnetic property. No new matter has been added. Applicant respectfully requests that the amendments be entered.

Applicant appreciates the Examiner's time and guidance given to Applicant's undersigned representative during the March 31, 2009 telephone interview.

The following remarks herein are considered to be responsive thereto.

**Claim Rejections – 35 U.S.C. §103**

Claims 1-10 and 12-15 remain rejected under 35 U.S.C. §103(a) as being unpatentable over Andres et al. (US 7186398).

Applicants respectfully traverse the rejections, however, to advance the prosecution, Applicant has amended claim 1 to require said core gold nanoparticle “**contains no Fe atom and has no magnetic property.**”

MPEP §2143 states that “[t]he legal standard for establishing a prima facie case of obviousness requires that the references teach or suggest all the claim limitations.” *See* MPEP §2143. (Emphasis added)

Andres et al. does not render the invention obvious at least for the reasons stated below.

Andres et al. teach Fe/Au nanoparticle that is **superparamagnetic with a large magnetic susceptibility**. *See* Abstract. The Fe atom concentration is in the range of 5 atom % to 50 atom %, i.e., a range of Fe(5)/Au(95) to Fe(50)/Au(50). Colum 4, lines 53-56. Andres et al. **expressly and specifically teach the Fe content of the nanoparticles is preferably at least 0.01 atom %; more preferably at least 5 atom %; preferably at most 70 atom % ; more preferably at most 50 atom %, i.e., Fe(50)/Au(50)..**

**The cited art does not teach the invention. Andres et al. does not teach any nanoparticle that contains no Fe atom and has no magnetic property.**

Andres et al. does not provide any suggestion or motivation to make the claimed invention. There is no motivation to replace the Andres’ Fe/Au nanoparticle with Fe atom-free Au nanoparticle because doing so would render the prior art inoperable since the purpose of Andres’ invention is for bio-magnetic applications.

In the Office Action, the Examiner alleged that Andres’ Fe/Au nanoparticle “can have as little as 0.01% iron and 99.99% gold” and that “such nanoparticles are essentially pure gold of 99.99% quality.”

Applicant respectfully submits that according to the Examiner’s stretched imaginations, Andres’ Fe(0.01)/Au(99.99) nanoparticles, although 99.99% gold quality, would have little

magnetic susceptibility, which would frustrate the very purpose of their invention, i.e., making a magnetic particle for bio-magnetic applications.

It would be extremely unthinkable that one of ordinary skilled in the art at the time when the invention was filed would have been motivated by Andres et al. to make a gold nanoparticle that contains no Fe atom and has no magnetic property for bio-magnetic applications.

Accordingly, Applicant respectfully requests that the § 103 rejections be withdrawn.

Any amendments to the claims not specifically referred to herein as being included for the purpose of distinguishing the claims from cited references are included for the purpose of clarification, consistence and/or grammatical correction only.

It is thus believed that the application is in condition for allowance at least for the above reasons and such allowance is respectfully requested.

#### CONCLUSION

Applicant respectfully submits that the foregoing Amendment and Response place this application in condition for allowance. If the Examiner believes that there are any issues that can be resolved by a telephone conference to facilitate the prosecution of this application, or that there are any informalities that can be corrected by an Examiner's amendment, please call the undersigned at 650-557-4464.

Respectfully submitted,

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**Patent**  
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